



PRODUCT STANDARD PUMPS

FP 70006

Rev. no. 00

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WELDING OF 13% Cr 4% Ni 0.5% CASTINGS.BASE MATERIALS:

13% Cr, 4% Ni, 0.5% Mo, ASTM 286 Grd, CA 6NK. Cast, Forged or Rolled section.

PREPARATION OF BASE MATERIAL:

Machined as per component tracings for fabrications.

EXCAVATIONS OF CASTING DEFECTS:

Defects shall be removed by machining, grinding or by the Arc Air gauging process.

When the Arc Air process is utilized the defective area and 50 mm of the surrounding area shall be preheated to 100°C. After gauging all surfaces of the excavated area shall be thoroughly ground with silicon carbide wheels or carbide burrs.

Excavation shall be such as to allow complete access for efficient welding.

The root radius shall be not less than 5mm and the profile included angle not less than 20°.

The excavated area shall be proved clear of defects by magnetic particle, or liquid dye penetrant examination.

WELDING PROCESS:

Surfaces for welding shall be degreased by solvent wiping and wire brushed free from any contaminants.

WELDING PROCESS:

Manual shielded metal Arc (SMAW).

FILLER METAL:

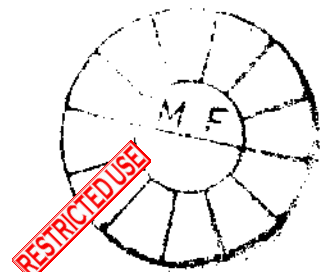
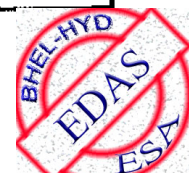
Metrode 13/4 Mo LR. (E410)

ELECTRICAL CHARACTERISTICS:

D.C. electric positive.

PREHEAT: 150°C.INTERPASS TEMPERATURE:

250°C maximum.

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REV.	DATE	ISSUED BY EDC (PUMPS)	
		PREPARED BY <i>[Signature]</i>	APPROVED BY <i>[Signature]</i> EDM (PUMPS)
			DATE JUNE 81

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WELDING TECHNIQUE:

The stringer bead technique shall be used and each run or pass thoroughly cleaned and wire brushed free from any debris before proceeding with the next subsequent run.

WELD DEFECTS:

Porosity, slag inclusions, or cracks appearing on the surface of any weld bead shall be rectified by grinding and proved clear by liquid dye penetrant or magnetic particle examination before continuing any further welding.

POST WELD HEAT TREATMENT:

Heat to 595°C - 620°C in electrically controlled furnace and hold for 1 hour per 25mm of thickness or 2 hours whichever is the greater.

CARE OF ELECTRODES :

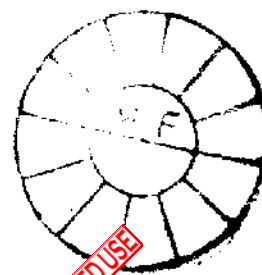
Electrodes shall be stored and dried in accordance with process specification 091/001.

INSPECTION:

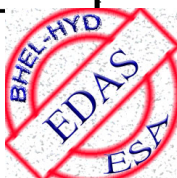
Visual inspection during and after completion of the welding operation. Finally, dye penetrant or magnetic particle examination and to code or class of construction.

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